

Directions

For Numbers 1 through 15, read each question and mark your answer.

1

Tony's debate team had a 3:2 win/loss ratio this season. If the team lost 4 debates, how many did they win?

- A** 6
B 8
C 9
D 12

2

The table shows the lengths of road four different crews repaired. Which crew repaired the longest stretch of road?

Crew	Length of Road (in kilometers)
Blue	2.087
Red	2.195
Yellow	2.091
Green	2.189

- F** Blue
G Red
H Yellow
J Green

3

Sylvia bought a jacket on sale for 25% off the original price. The original price of the jacket was \$42.00. What was the sale price of the jacket?



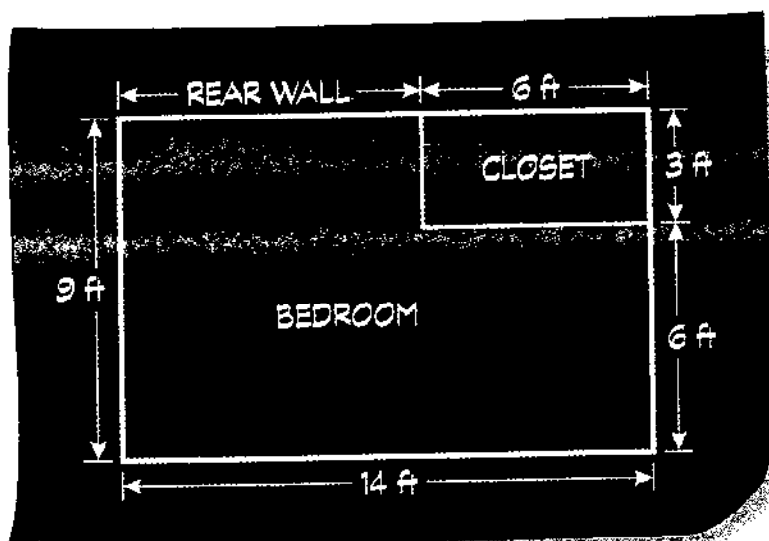
- A** \$10.50
B \$30.00
C \$31.50
D \$53.13

4

Which of these is the best estimate of $0.08 \times 30,689$?

- F** 3
G 30
H 300
J 3000

5



Drew wants to build a shelf against the rear wall of his bedroom. The shelf will extend from the side wall to the closet wall. Drew will use the diagram above to find out how long the shelf should be. Which of these expressions should he use to find the length of the rear wall?

- A $9 \text{ ft} - 3 \text{ ft} =$
- B $9 \text{ ft} - 6 \text{ ft} =$
- C $14 \text{ ft} + 6 \text{ ft} =$
- D $14 \text{ ft} - 6 \text{ ft} =$

6

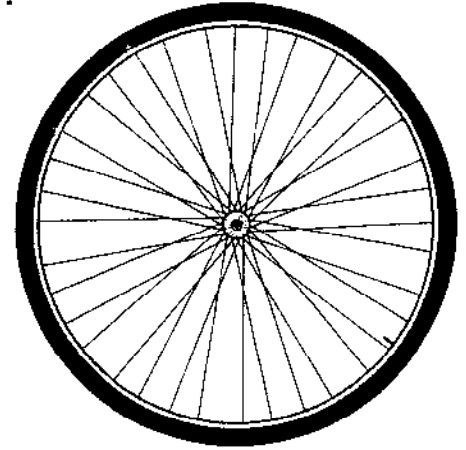
The width of a rectangle is 4 centimeters and its area is 36 square centimeters. What is the perimeter of the rectangle?

- F 9 centimeters
- G 13 centimeters
- H 26 centimeters
- J 28 centimeters

7

Kent bought this wheel to replace a broken wheel on his bicycle. Which of these statements about the wheel is true?

- A The diameter is about 3 times the radius.
- B The radius is about 3 times the diameter.
- C The circumference is about 3 times the diameter.
- D The circumference is about 3 times the radius.

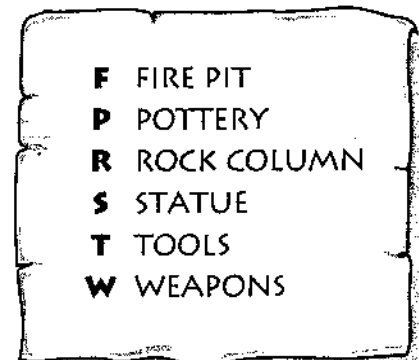
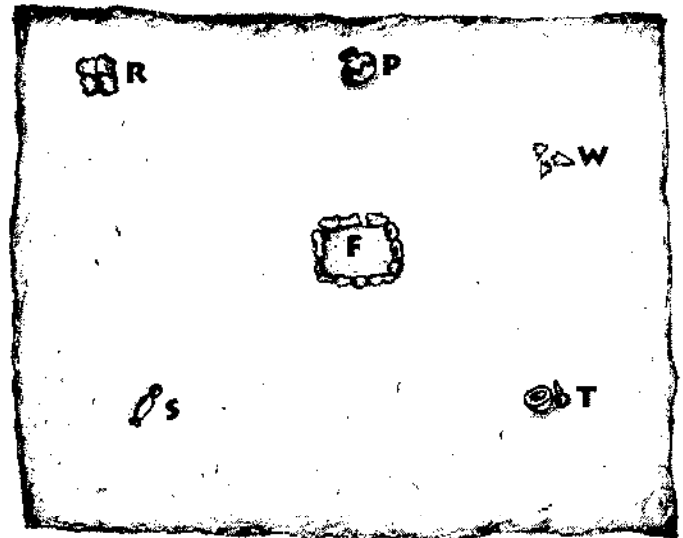


8

Archaeologists use coordinate systems to map the locations of objects found during a dig. These maps can later be used to learn about the culture of ancient civilizations.

The fire pit marks the origin. Pottery is located at coordinates (0, 3). Which item is located at (3, -2)?

- F Rock Column
- G Statue
- H Tools
- J Weapons



9

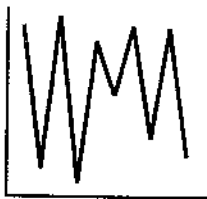
In quadrilateral ABCD, angle A measures 90 degrees, angle B measures 90 degrees, and angle C measures 110 degrees. What is the measure of angle D?

- A 70°
- B 90°
- C 100°
- D 110°

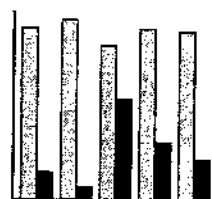
10

Which of these graphs most clearly shows a comparison of the relative high and low temperatures among the cities?

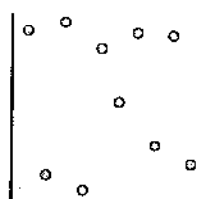
EXTREME TEMPERATURES		
City	High	Low
Portland, OR	107°F	-3°F
Omaha, NE	114°F	-14°F
Honolulu, HI	94°F	53°F
San Francisco, CA	106°F	20°F
Charleston, SC	104°F	6°F



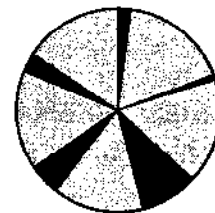
F



G



H



J

Function Table

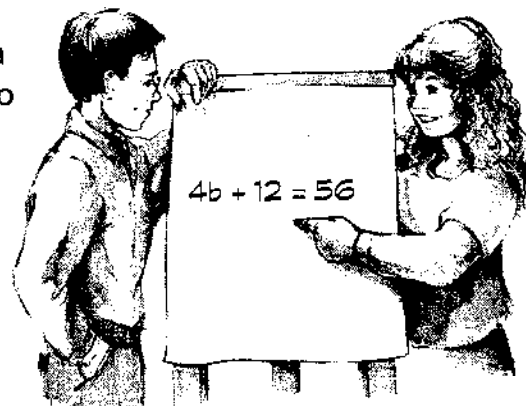
x	y
0	0
4	16
-2	-8

Which equation fits the data in the function table?

- A** $y = -4x$
- B** $y = 4x$
- C** $y = \frac{4}{x}$
- D** $y = \frac{-4}{x}$

Alex and Jessie were working on the equation shown on the chart to the right. Jessie plans to subtract 12 from both sides, then divide by 4. Alex plans to multiply both sides by 4, then add 12. Which of these statements is true?

- F** Only Jessie has a correct strategy.
- G** Only Alex has a correct strategy.
- H** Both Jessie and Alex have a correct strategy.
- J** Neither Jessie nor Alex has a correct strategy.



13

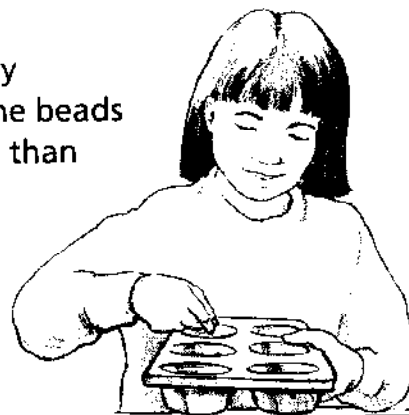
On Earth, if only gravity is acting on an object, the speed of the object will increase by 32 feet per second as it falls. The table shows the effect of gravity on the speed of a falling object.

Seconds After Object Drops	Speed of Object (ft./sec.)
1	32
2	64
3	96
4	128
x	

Which of these explains how to calculate the speed of a falling object after x seconds?

- A** $32x$
- B** $x + 32$
- C** $32x + 32$
- D** $x \div 32$

Sally is making a bead bracelet exactly 13 centimeters long. She will select the beads using this chart. Sally must spend less than \$2.40 for all the beads. She will use exactly 1 silver bead and at least 1 gold bead, 2 red beads, and 2 blue beads.



BEADS

Color	Length (in millimeters)	Price
Red	10 mm	\$0.20
Blue	5 mm	\$0.05
Gold	25 mm	\$0.75
Silver	35 mm	\$0.50



In the box below, write a plan to help Sally choose the beads for her bracelet. You must include:

- the number of each color bead
- the total cost of the beads
- the total length of the bracelet

15

Tanya mounted this picture on white mat board as shown. Her art instructor told her that $\frac{1}{3}$ of the total area should be left white. Explain to Tanya a strategy she could use to determine whether $\frac{1}{3}$ of the area is white.

